



LABORATORIES HAZARDOUS FLUIDS TEST AREA CAPABILITIES

SUMMARY

The Hazardous Fluids Test Area (800 Area) at White Sands Test Facility (WSTF) is a NASA facility used for performing potentially hazardous tests involving gaseous oxygen, air, and Type-J spacecraft fluids, which include hydrogen and earth-storable fuels and oxidizers.

FACILITY CAPABILITIES

The test facility consists of 16 permanent cells originally designed to expose materials to vapor or liquid-phase Type-J fluids. Additional tests have been incorporated to support gaseous oxygen environments and material evaluation. Common services provided to the facility include nitrogen, electric power, instrumentation, data acquisition, area and test cell warning systems, fire extinguishing equipment with remote and local control, closed-circuit television, intercell communications, and a public address system. Gaseous oxygen, hydrazine, monomethylhydrazine, nitrogen tetroxide, hydrogen, and helium are provided to certain individual cells. In addition, the test facility is provided with emergency shower and eyewash fountains. Capabilities are also provided for safe disposal of waste propellant fuels and oxidizers, and the field decontamination of components and softgoods.

The 800 Area Control Center provides remote control and monitoring instrumentation for all of the test cells at WSTF. The Control Center is equipped with various data acquisition systems to provide control, data acquisition, and reduction for the individual test systems.

TEST CAPABILITIES

The test facility is capable of testing materials, components, and entire systems to customer-developed specifications.

TEST LIMITATIONS

Hazardous tests are conducted so that personnel are not directly exposed to high-pressure gases, cryogens, or hazardous fluids. Personnel will not be exposed to a test material in its test media and/or under hazardous pressure levels. The maximum quantity of a test material to occupy any one test cell will not exceed 1.9 lb of TNT equivalent, the maximum quantity of detonated TNT the cell will withstand without structural failure.

CONTACT

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